SMC Program Overview

Welcome to Los Angeles AFB

Space and Missile Systems Center

Space Contributions to OEF

- Navigation
- Communications
- Weather
- Surveillance

GPS

MILSTAR

DMSP

DSP

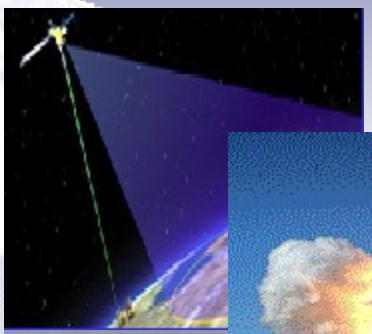
Unprecedented Gains in Joint Warfare – Capabilities & Systems

Most robust space capability in history

Our Successes - Launch

A world class team providing premier space lift for America
23 Successful Launches in a row!
First EELV Launch – Resounding Success!

SMC Mission and Vision



Space Control

Force Application

Space Support

Space Force Enhancement

Mission: Deliver unrivaled space and missile systems to the joint warfighter and our nation

Vision: Become The Center of Excellence for space & missiles by building a reputation of producing quality products on time, at cost … meeting warfighter needs

Providing Effects to the Warfighter through Horizontal Air and Space Integration

One Voice for Space

USecAF Priorities

1. Universal Situational Awareness
2. Assured Access to Space
3. Space Professional
4. Program Execution

HQ AFSPC Priorities

1. MAJCOM Responsibilities
2. Componency
3. Support Executive Agent for Space

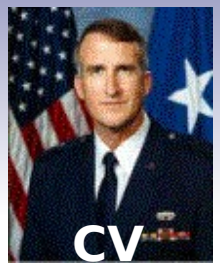
SMC Priorities

1. Mission Success
2. Acquisition Excellence
3. Focus on the People
4. One Team – One Family

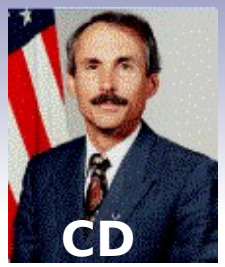
Delivering unrivaled space and missile systems

SMC Organization

CCC


CV

CC, PEO


CD

Command CMSgt

SMC Commander (CC)
Program Executive Officer (PEO Space)
Vice Commander (CV)
Deputy PEO (Space)
Executive Director (CD)

Staff

Director of Staff

Space-Based Infrared

Military Satellite Communications

Evolved Expendable Launch Vehicle

NAVSTAR Global Positioning System

Space-Based Laser

Advanced Systems

Launch Programs

Def Meteorological Satellite Program

Satellite & Launch Control

ICBM

Air Force Research Lab

Los Angeles AFB

Det 8 Cape Canaveral

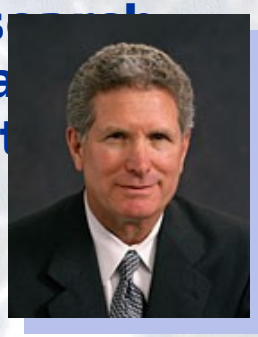
Det 9 Vandenberg AFB

Det 11 Peterson AFB

Det 12 Kirtland AFB

The Aerospace Corporation

Federally Funded Research and Development Center. Trusted agent and partner of the Government. Provides general systems engineering and integration, planning analysis, and res… Corpora… …edge and hist…



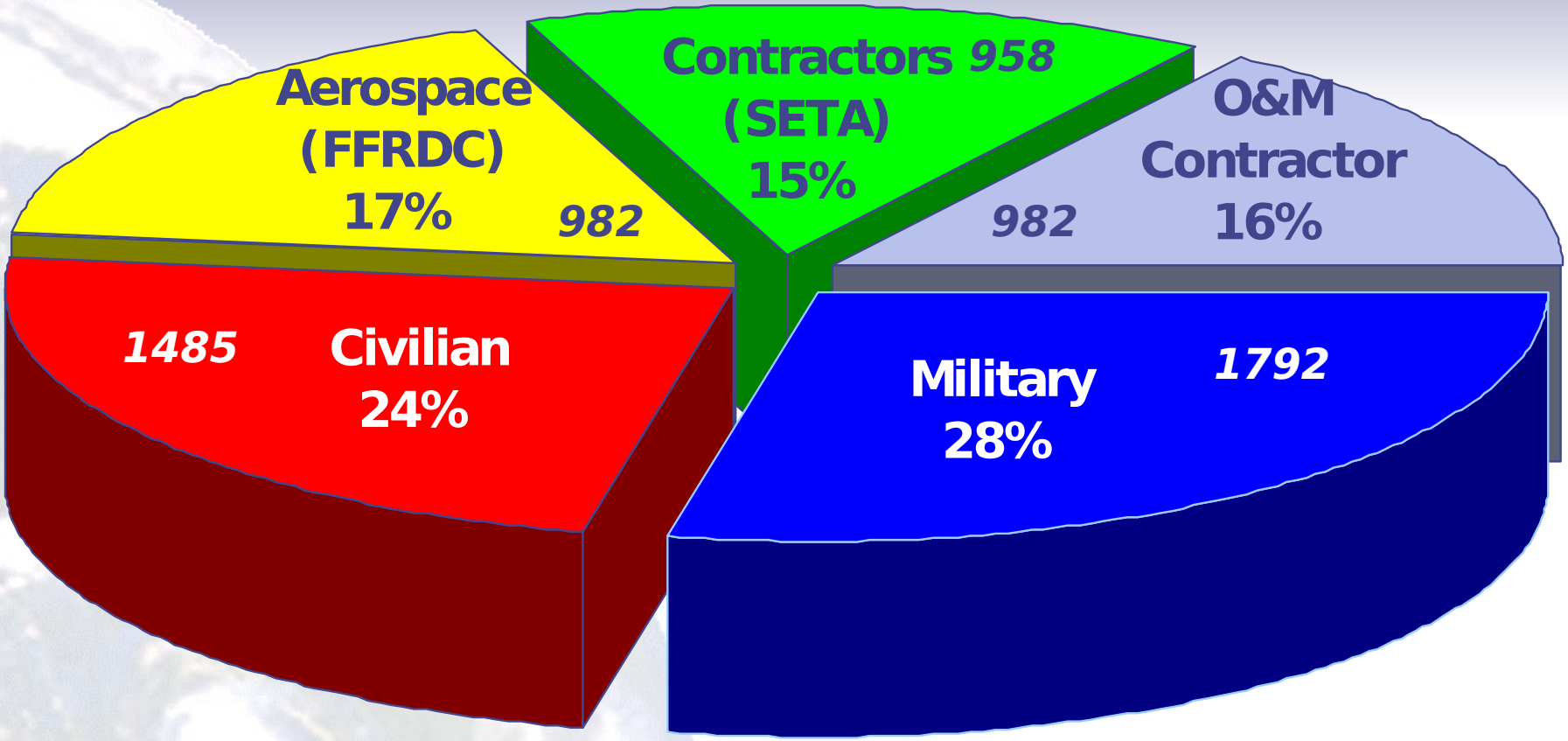
Dr William F. Ballhaus Jr
President and CEO

Total Aerospace Workforce – 2,558

Aerospace STE – 1,868

Aerospace Corporation is the technical arm for SMC

FY02 SMC Work Force*

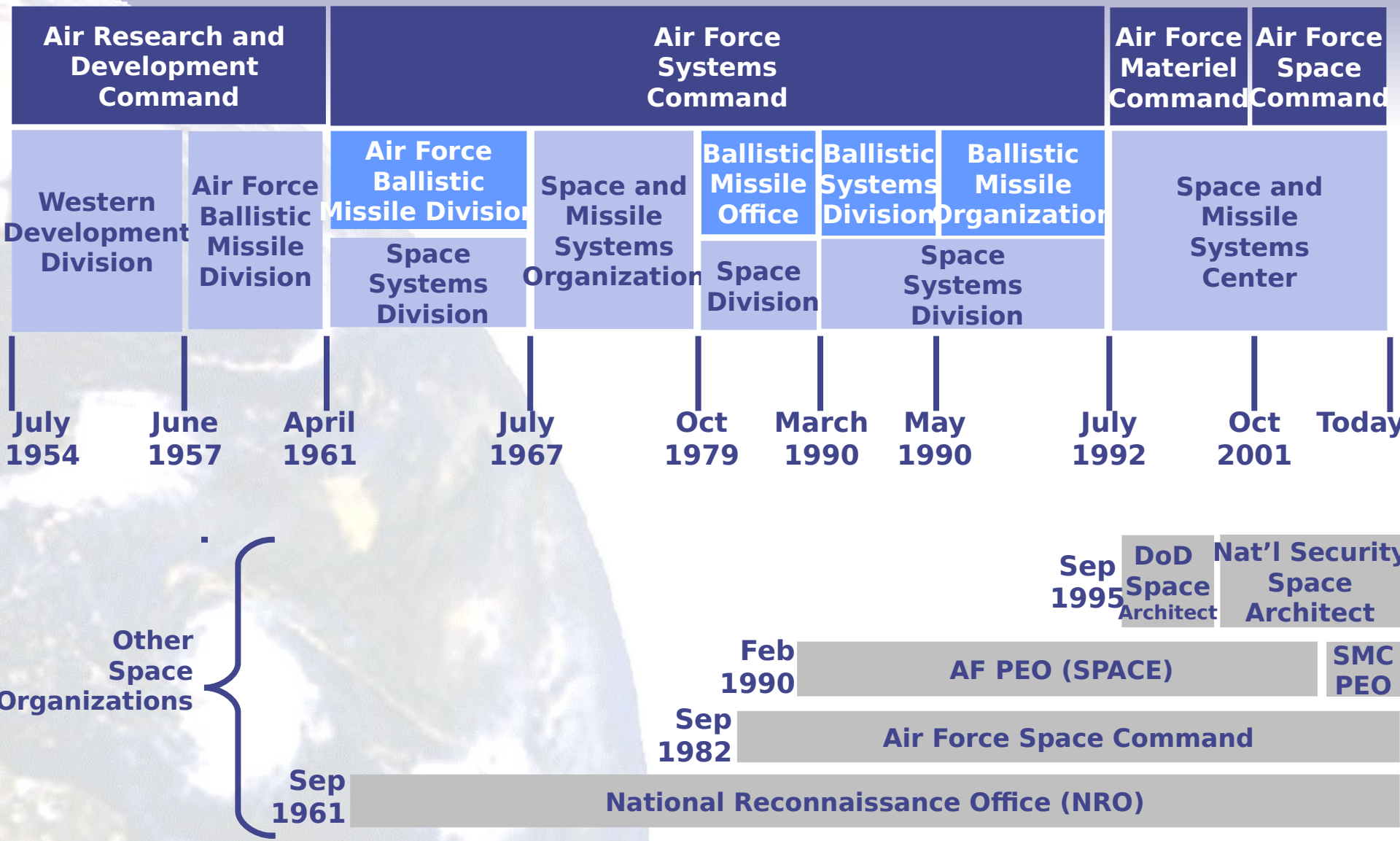


*Includes Base Operating Support

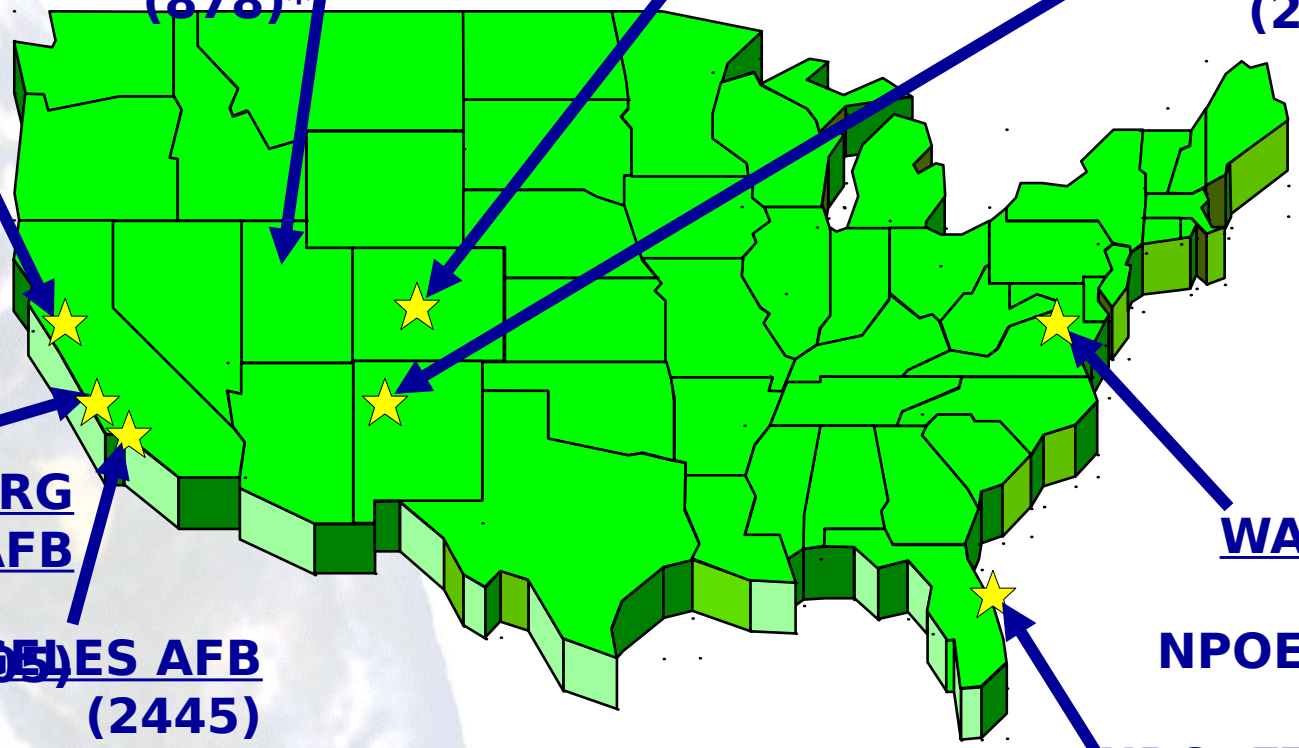
Total Authorizations = 5217 (Does not include O&M Contractor)

As of 17 Sep

SMC History


Air Research and Development Command
Air Force Systems Command
Air Force Materiel Command
Air Force Space Command
Western Development Division
Air Force Ballistic Missile Division
Air Force Ballistic Missile Division
Space Systems Division
Space and Missile Systems Organization
Ballistic Missile Office
Space Division
Ballistic Systems Division
Ballistic Missile Organization
Space Systems Division
Space and Missile Systems Center
July 1954
June 1957
April 1961
July 1967
Oct 1979
March 1990
May 1990
July 1992
Oct 2001
Today
Other Space Organizations
Sep 1961
National Reconnaissance Office (NRO)
Sep 1982
Air Force Space Command
Feb 1990
AF PEO (SPACE)
SMC PEO
Sep 1995
DoD Space Architect
Nat'l Security Space Architect

SMC Locations



ONIZUKA AFS
OL-CW (13)

HILL AFB
ICBM (878)*

PETERSON AFB
DET 11 (334)

KIRTLAND AFB
DET 12 (220)

VANDENBERG AFB
DET 9 (105)

LOS ANGELES AFB
HQ SMC, 61 ABG (2445)

WASH DC AREA
NPOESS, (21)

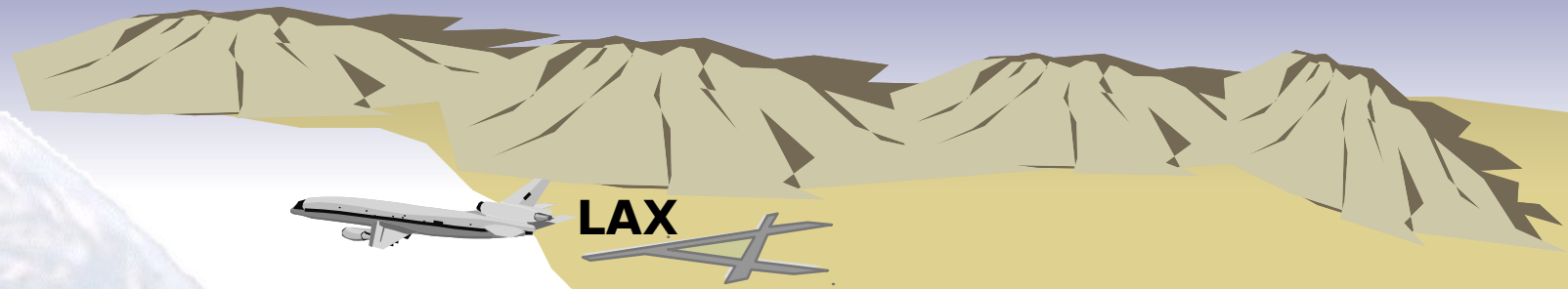
OTHER
NRO, ETC

CAPE CANAVERAL AFS
DET 8

☆ **Installations with Aerospace Support**

SMC TOTAL
3,276
(*ICBM not included)

Los Angeles Air Force Base Community



The Aerospace Corporation

Area B

Area A

Lawndale

El Segundo & Lawndale

Main office complex and support

San Pedro

Military community support

Pacific Crest

Pacific Heights

Pacific Heights II

Ft MacArthur

Pacific Heights II

SAMS Complex Concept

- Authorizing legislation
  - Defense Auth. Act for FY01
- Exchange land for new facilities
  - Eliminate life-safety deficiencies
  - Force protection
  - Right size infrastructure

- Phase I - completed 22 Dec 01
  - 3 developers chosen
- Phase II - 25 Jan-1 Jul 02
  - Final Selection

Our Challenge

- Shrinking workforce
  - 35% reduction in manpower since 1992
  - Over 65% of civilians retirement eligible by 2007
  - Acquisition Lieutenants manned at 244%
- Increasingly complex and growing mission (from 16 to 30 programs)
  - Systems of Systems
  - Interfaces with users/customers
  - Enterprise Management
  - Elimination of TSPR on development/production programs

Personnel Challenge

Personnel

1992

3685 Organic
1513 FFRDC
1391 SETA
6589 Total

2002

2611 Organic
1075 FFRDC
989 SETA
4675 Total

Programs

1992

AFSCN	Delta
DSCS	Titan
DSP	Atlas
DMSP	GPS IIR
MILSTAR	IUS
AFSATCOM	FEWS
GPS User Equip	
Spacelift Range	
SDI Programs	
*ICBM REACT	

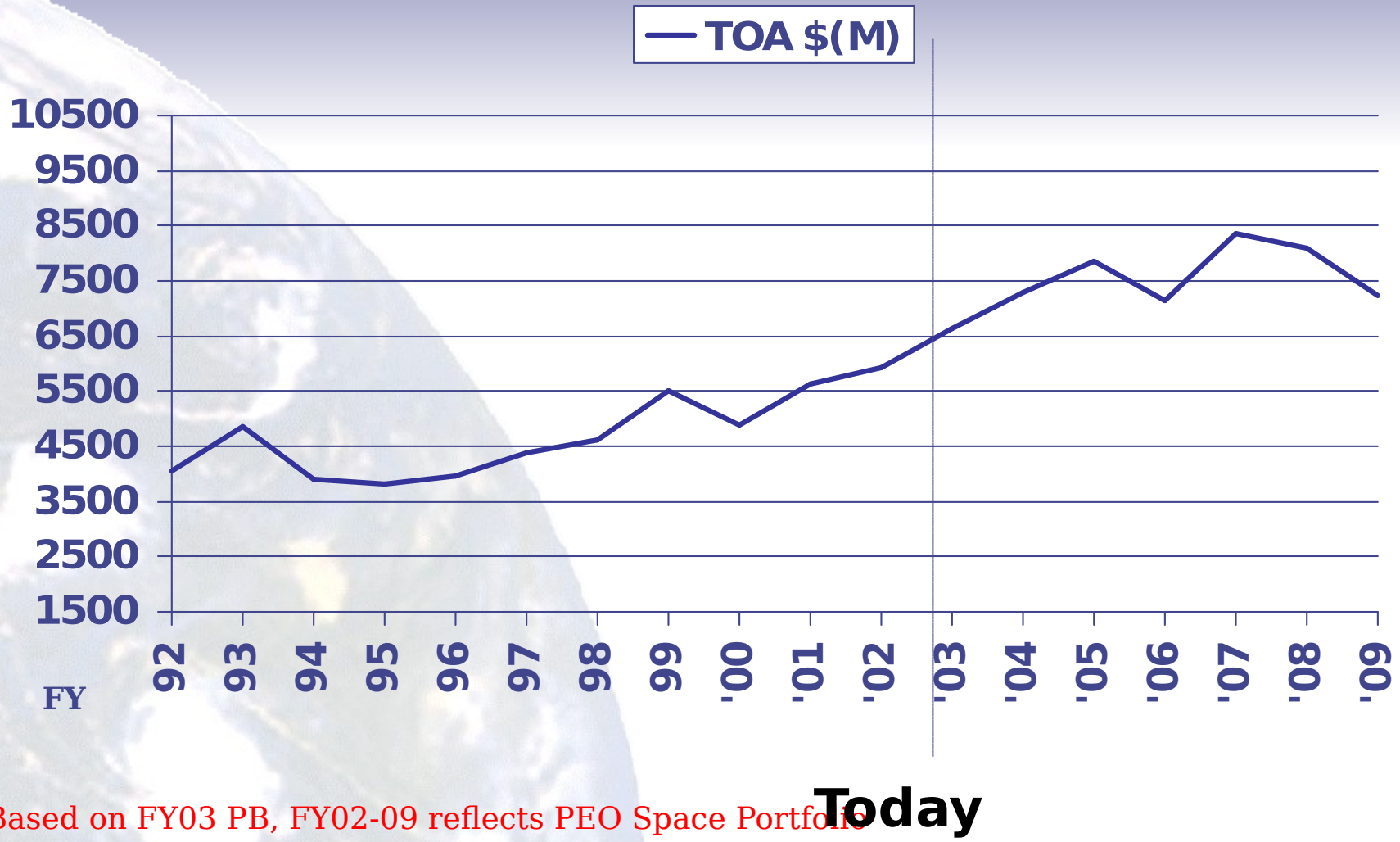
2002

		SBIRS High
SBR	Delta	SBIRS Low
GBS	Titan	Advanced WGS
AFSCN	Atlas	Advanced EHF
DMSP	EELV	Polar Sat Com
*GEODDS	GPS III	GPS User Equip
MILSTAR	GPS IIR	GPS IIF
DSCS	CSEL	*HAVESTARE
DSP	GPS Control Segment	
STP	Spacelift Range	
*RSLP	*Early Warning SLEP	
*ICBM GRP	*ICBM PRP	

As of 7 May 02

*SMC responsible for execution but manpower authorizations at ESC and OO-ALC not included for these

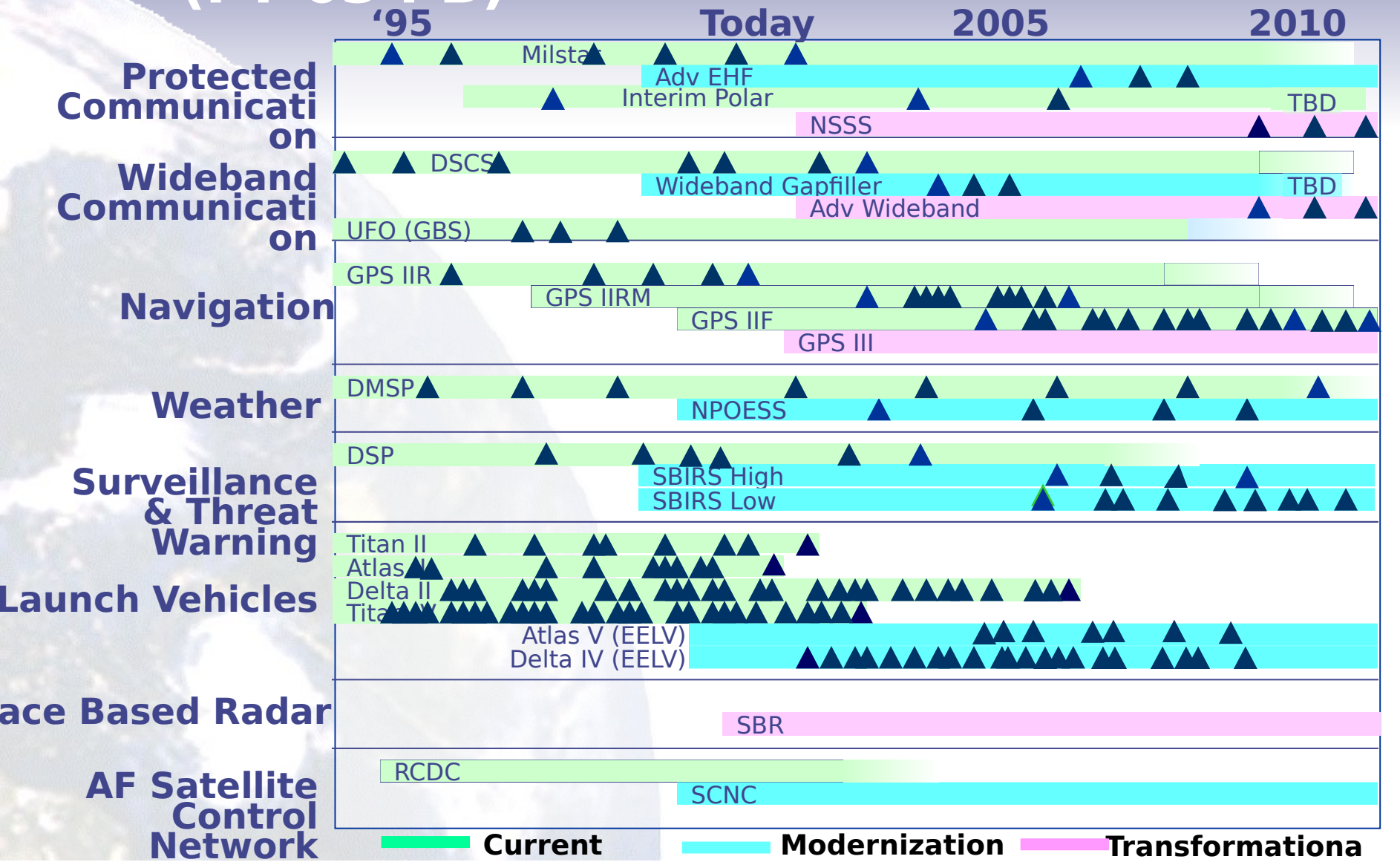
SMC Investment Acquisition Dollars



Based on FY03 PB, FY02-09 reflects PEO Space Portfolio

Note: Includes 3600, 3010, 3020, 3080; NRO Launch Costs

Challenge – Transforming our portfolio (FY 03 PB)

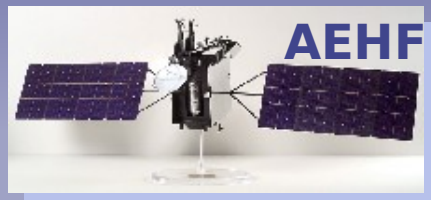


Military Satellite Communications System (SMC/MC)

Mission:
Equips the President, Secretary of Defense and combat forces of all Services with survivable, worldwide, rapid co tions for al levels of conflict.

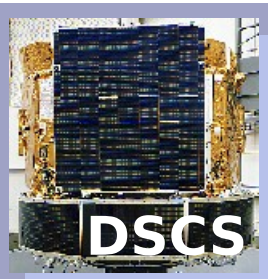
Ms. Christine Anderson

Protected



- Anti-Scintillation up to 19.2Kbps
- Anti-Jam up to 8

Wideband



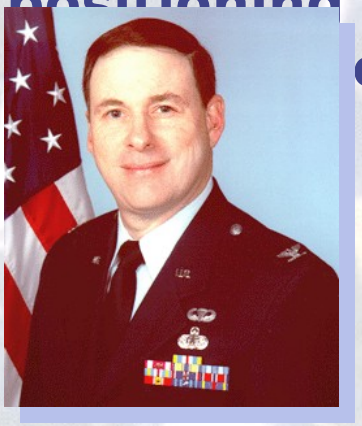
- UAV Support up to 137Mbps

Terminals

Provide end-to-end connectivity among different users with different requirements – “Bandwidth on Demand”

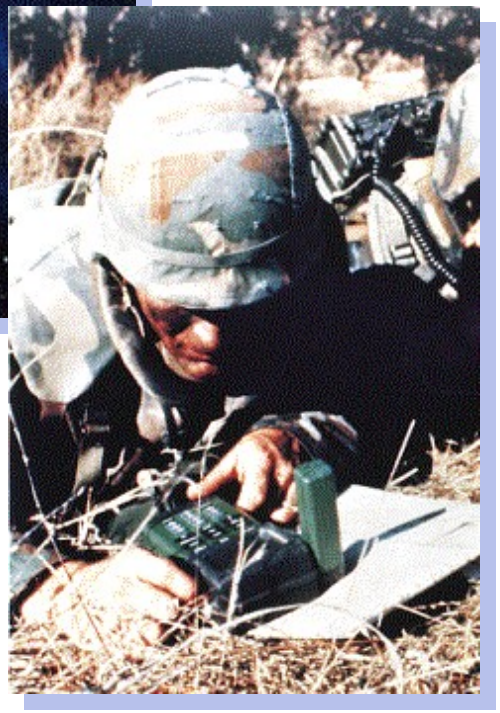
NAVSTAR Global Positioning System (SMC/CZ)

Mission:
Acquire and sustain survivable, effective, and affordable global positioning



our

Col Doug Loverro



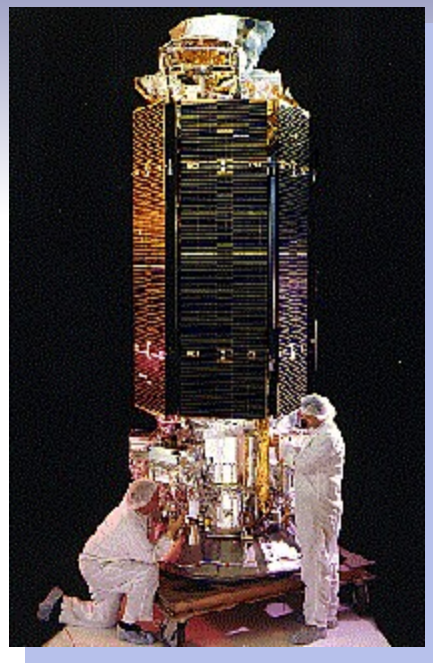
We are the Center of Excellence for Space-Based Navigation

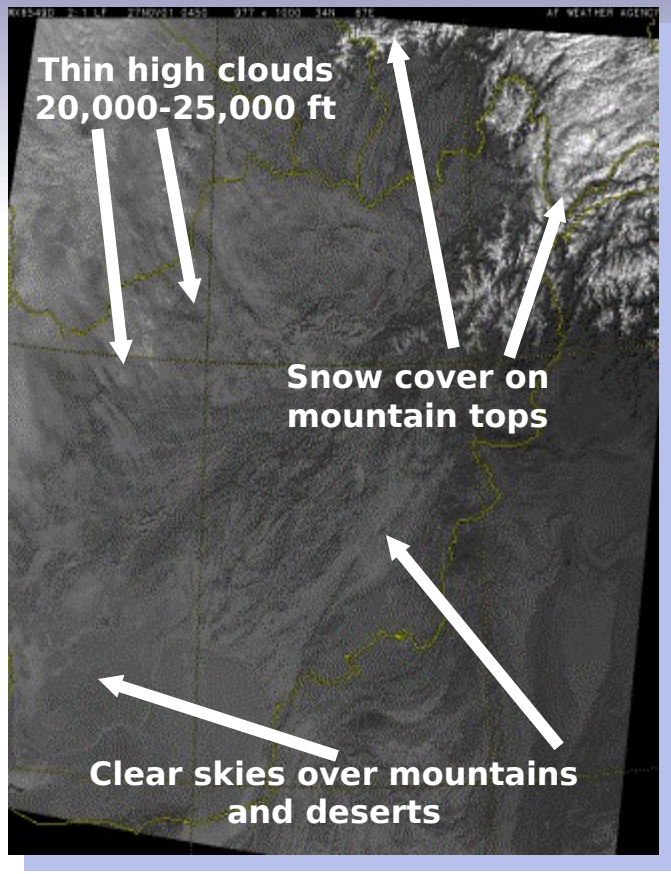
Defense Meteorological Satellite Program (SMC/CI)

Mission:

- Collect data on a global basis
- Deliver data to military/national users worldwide

Col Randy Odle





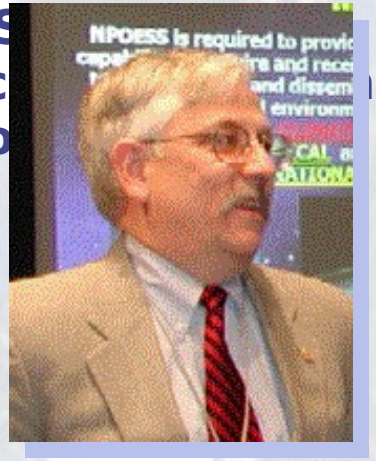
DMSP imagery Afghanistan
27 Nov 01

To vigorously perform the DMSP mission to cost effectively support the warfighter

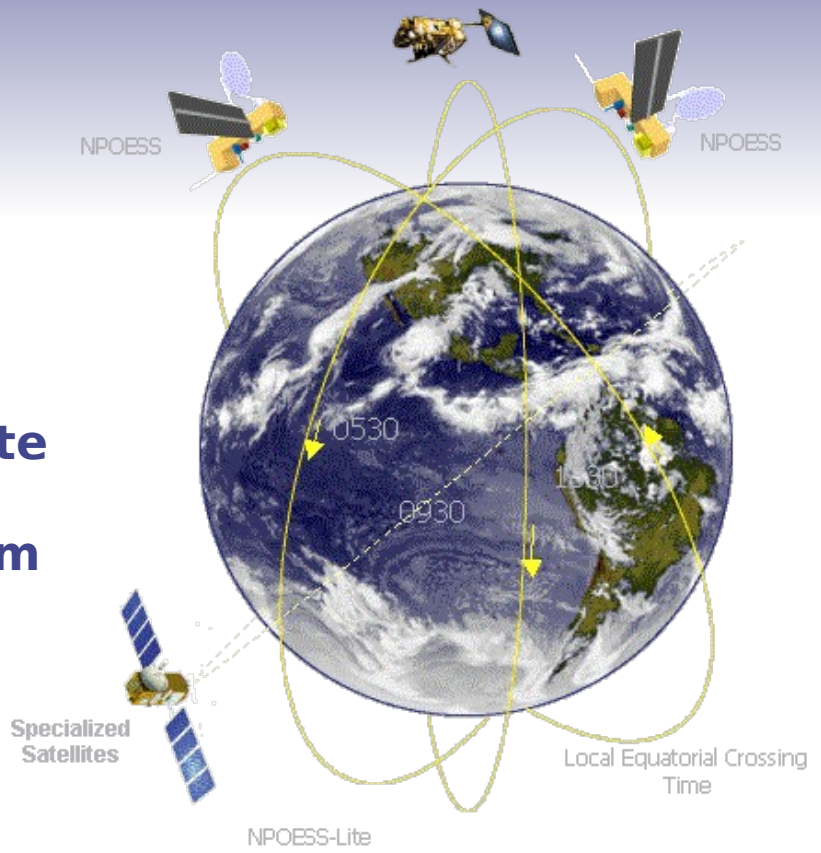
National Polar-orbiting Operationa Environmental Sat. System (NPOES

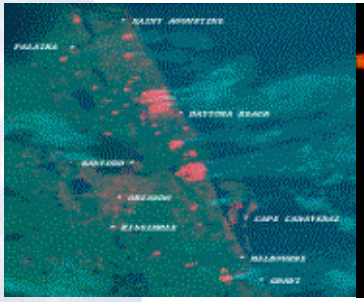
Mission:

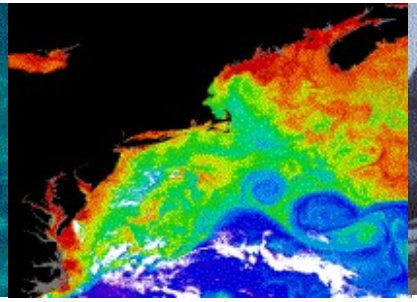
- **Provide a national, operational, polar-orbiting, remote-sensing capability**
- **Achieve National Performance Review savings ($1.8B) by converging DoD and NOAA satellite programs**
- **Incorporate new technologies from NAS**
- **Enc ational Coo**



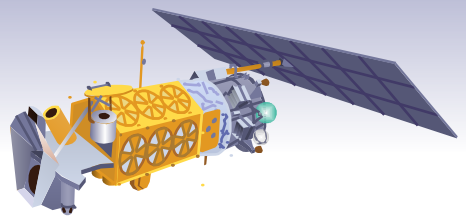
Mr John Cunningham

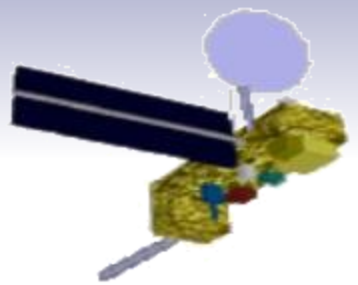






Defense Meteorological Satellite Program (SMC/CI) Transformation





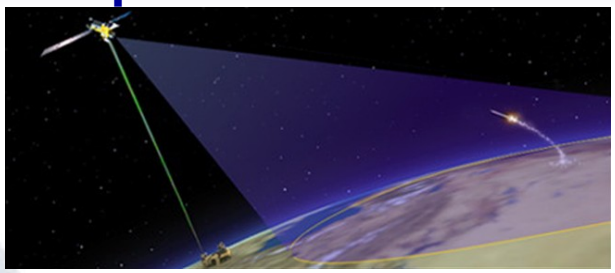
Capabilities	DMSP (5D3)	NPOESS
Data Refresh Rate*	6 hrs	4 hrs
Imagery Resolution* (vis & IR) Global:	3.25 km	0.4 - 0.8 km
Region:		0.625 km0.4 - 0.8 km
Multi-spectral imaging capability	2 channels	22 channels
Microwave Imaging Resolution	12.5-50 km	12.5 - 20 km
Temperature Profile Sampling	23 levels	Up to 50 levels
Water Vapor Profile	6 levels	Up to 25 levels
Sea Surface Temperature Resolution	none	.8 km
Sea Surface Temperature Accuracy	none	± 0.2 ºK
Sea Surface Wind Speed/Direction	2 m/s / none	1 m/s / ± 20 degrees

Space Based Infrared System (SMC/MT)

Mission:
Provides space-based surveillance for missile warning

Col Mark Borkowski

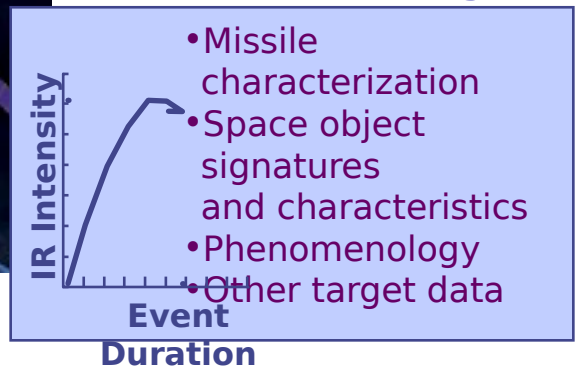
Improved Missile Warnin



Missile Defense

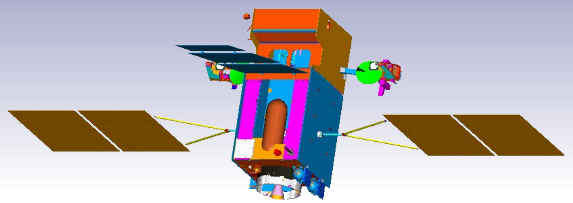
Battlespace Characterization

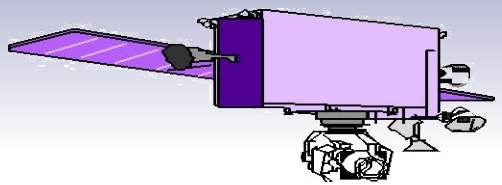
Technical Intelligence



The first step in a credible missile defense for America.

Space Based Infrared System (SMC/MT) Transformation





Capabilities

DSP

- Missile Warning (with a classified Probability of Detection) for North America
- Detection and reporting of strategic and theater ballistic missiles and other infrared events of interest

MISSIONS	DSP	SBIRS H	SBIRS L
MISSILE WARNING	X	X	o
MISSILE DEFENSE		X	X
TECHNICAL INTEL		X	o
BATTLESPACE CHARACTERIZATION		X	o

X – Primary Mission o – Offers Inherent Capability

SBIRS High

- DSP Successor
- Higher Sensitivity—Sees Dimmer Objects, More Often
- Taskable Sensor—Can do Many Missions at Once
- More Accurate Estimate of Missile Location—Including Launch Point and Impact Point

SBIRS Low

- Critical Element of the Ballistic Missile Defense System (BMDS)—Executed at SMC but Managed by MDA
- Tracks Threat Missiles Through Entire Flight—From Launch to Intercept
- Sees Extremely Dim Targets—Can Track and Discriminate Objects That are Not Burning
- Inherent Capabilities Also Support Other Missions

Three Individual Programs — Each With Stand-Alone Capabilities — That Complement One Another

Launch Programs (SMC/CL)

Mission:
Acquire and sustain reliable, affordable national space launch capability.

Col Mike Dunn

A world class team providing premier space lift for America.

Evolved Expendable Launch Vehicles (SMC/MV)

Mission:

Partner with industry to develop two national launch systems that far exceed all customers' mission assurance and affordability requirements.

Col Sue Mashiko

Assured, affordable access to space for the 21st Century

Satellite and Launch Control Programs (SMC/CW)

AFSCN Mission:
To transition the AFSCN to a government/commercial satellite control network while sustaining required DoD capabilities

SLR Mission:
[illegible]ce-centric [illegible] while sustaining launch [illegible] capabilities

Col Michael Mantz

Air Force Satellite Control Network

Space Lift Range

Shaping the future of Satellite and Launch Control

ICBM Program Office

Mission:
Responsible for cradle-to-grave integrated weapon system management of minuteman and peacekeeper weapon systems. The single face to customer

Col Robert Fisher

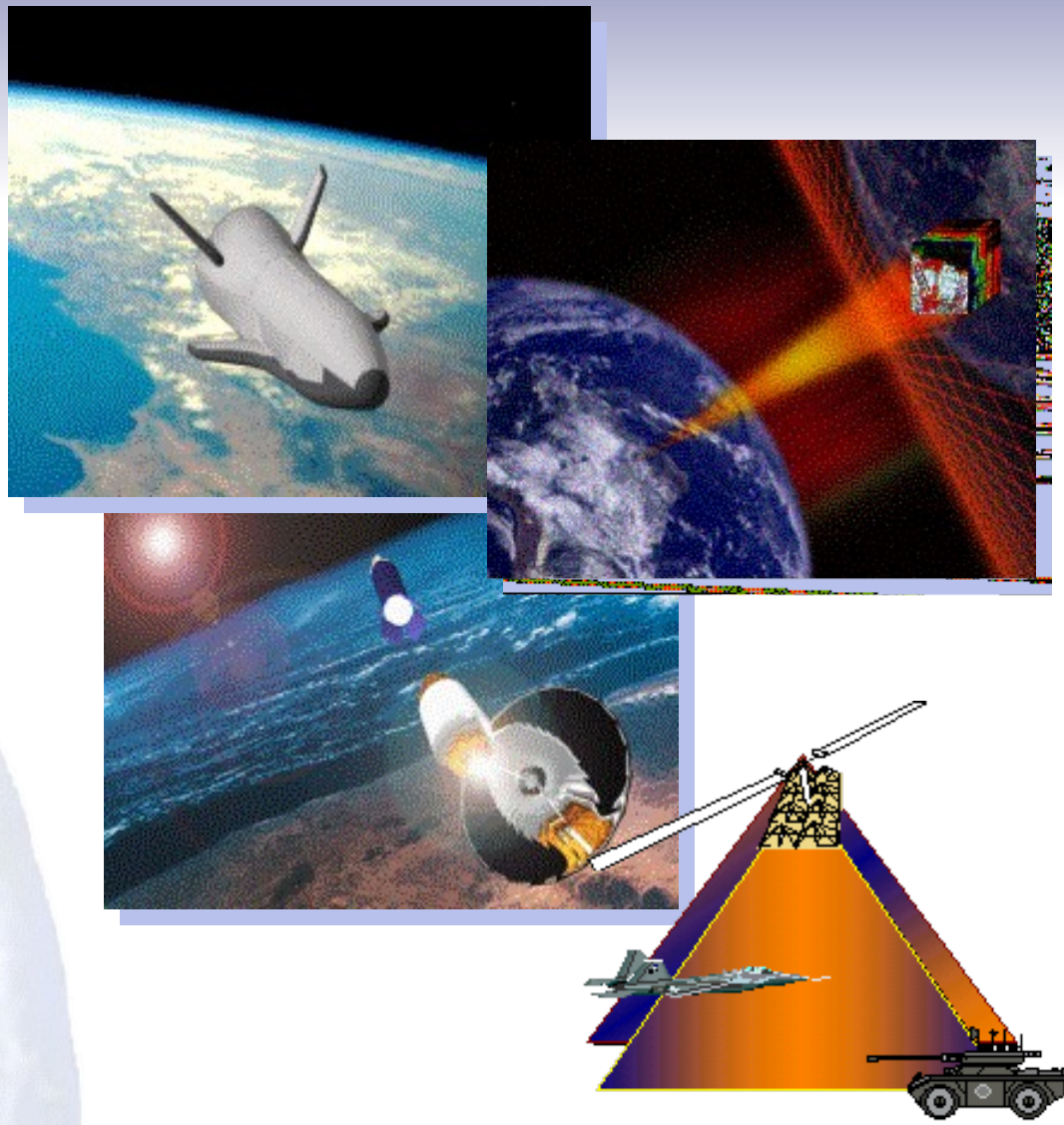
Working together to exceed the warfighters' need by sustaining the world's preeminent strategic deterrent force; ensuring the security of our freedoms

Developmental Planning (SMC/XR)

Performs technical planning for Air Force space missions as well as space modeling & simulation for decision support and strategic planning for SMC

Photo Pending

Col Jim Painter



Space Superiority
SMC/AD

Executes selected operational concepts, prototypes, and demonstrations and transitions successful projects for development to other program offices or dire d.

Col Edward Alexander

ADVANCED SYSTEMS DIRECTORATE

SMC Detachments

Det 12 Kirtland AFB

Focal point for space and missile developmental testing and space flight for DOD experimental / prototype payloads on orbital/sub orbital/near-space launch systems, and theater/national representative targets

Col James Neumeister

Det 11 Peterson AFB

Support assigned Systems Support Managers (SSMs) and System Program Directors (SPDs) in meeting life-cycle performance and cost requirements for sustaining space systems and support to AFSPC

Col Louis Johnson

Det 9 Vandenberg AFB

SMC's single face to AFSPC at Vandenberg AFB. Acquires, tests and sustains state-of-the-art space and missile systems, facilities and ranges

Col (S) Randy Turner

Det 8 Cape Canaveral AFB

Command focal point for Air Force space and space-related activities at Cape Canaveral AFS and Patrick AFB. The single point of contact with the host base command structure for all matters affecting the Space and Missile

Col Mike Baker

Where do we want to be in two years?

- Make SMC an exciting place to work … attracting and retaining space expertise
- Become one team within and with HQ AFSPC and USECAF by forming a cohesive working relationship between operators and acquirers
- Deliver unrivaled space capability on schedule, on cost